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Serial No. 10/567,369
Docket No. PKHF-04053US
HIR.201

2

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A semiconductor layer, comprising:
a ~~first~~ layer comprising a Ga_2O_3 system single crystal substrate; and
a ~~second~~ layer comprising a nitride surface of said ~~first~~ layer substrate containing oxygen and nitrogen.
- 2-3. (Cancelled.)
4. (Currently Amended) A semiconductor layer according to claim 1, wherein the ~~first~~ layer substrate comprises Ga_2O_3 , $(\text{In}_x\text{Ga}_{1-x})_2\text{O}_3$ where $0 \leq x < 1$, $(\text{Al}_x\text{Ga}_{1-x})_2\text{O}_3$ where $0 \leq x < 1$, and $(\text{In}_x\text{Al}_{1-x-y})_2\text{O}_3$ where $0 \leq x < 1$, $0 \leq y < 1$, and $0 \leq x + y < 1$ as a main constituent.
5. (Cancelled.)
6. (Currently Amended) A semiconductor layer, comprising:
a ~~first~~ layer comprising substrate of a Ga_2O_3 system single crystal substrate;
a ~~second~~ layer comprising a nitride surface of said ~~first~~ layer substrate containing oxygen and nitrogen; and
a ~~third~~ layer comprising a GaN system epitaxial layer grown on the ~~second~~ layer comprising the nitride surface.
- 7-8. (Cancelled.)
9. (Currently Amended) A semiconductor layer according to claim 1, wherein the [[first]] layer consists of a single crystal $\beta\text{-}\text{Ga}_2\text{O}_3$.
10. (Previously Presented) A semiconductor layer according to claim 9, wherein the single crystal $\beta\text{-}\text{Ga}_2\text{O}_3$ has a prismatic shape having a square in cross section, and its axis direction matches a-axis <100> orientation, b-axis <010> orientation, or c-axis <001>

Serial No. 10/567,369
Docket No. PKHF-04053US
HIR.201

3

orientation.

11. (Currently Amended) A semiconductor layer according to claim 1, wherein the [[first]] layer comprises $(In_xGa_{1-x})_2O_3$ where $0 < x < 1$.

12. (Currently Amended) A semiconductor layer according to claim 1, wherein the [[first]] layer comprises $(Al_xGa_{1-x})_2O_3$ where $0 < x < 1$.

13. (Currently Amended) A semiconductor layer according to claim 1, wherein the [[first]] layer comprises $(In_xAl_yGa_{1-x-y})_2O_3$ where $0 < x < 1$, $0 < y < 1$, and $0 < x + y < 1$.

14. (Cancelled.)

15. (Currently Amended) A semiconductor layer according to claim 6, wherein the [[first]] layer comprising the nitride surface consists of single crystal β - Ga_2O_3 .

16-20. (Cancelled.)

21. (Currently Amended) A semiconductor layer, comprising:
~~a first layer comprising a Ga_2O_3 system single crystal substrate; and~~
~~a second layer comprising a nitride surface of said first layer substrate which~~
contains oxygen and nitrogen,
wherein the second layer comprises a GaN system compound semiconductor.